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16. Abstract (MAXIMUM 200 WORDS)  
   The Domestic Ice Breaking (DOMICE) Simulation Model was developed to update the Operational Risk Assessment Model (ORAM) and add additional rigor to its analysis capabilities related to the United States Coast Guard (USCG) DOMICE mission. Additionally, the DOMICE Simulation Model provides a more complete assessment of risk associated with ice breaking activities by analyzing the various levels of impacts incurred from unmet ice breaking demand. This improved version of the model more accurately evaluates mission impacts by reducing the time step, refining waterways definitions, and calculating transit times, among other improvements. The DOMICE Simulation Model uses the commercial modeling software program Analytica® as a base. Either a licensed or free version of Analytica® (available through www.lumina.com) is required to operate the model.  

A related document, the DOMICE Model User Guide (Report No. CG-D-3-14), provides information to advanced users of the DOMICE Simulation Model in the software Analytica®. The User Guide is intended to provide a technical and detailed description of the model as an addendum to the “Domestic Ice Breaking (DOMICE) Technical Report on DOMICE Simulation Model.” The “Technical Report” should be utilized as a more general overview of the DOMICE Simulation Model. The User Guide aims to explain processes related to regular uses of the model, including setting up the model for routine analyses, running the computational model, and interpreting the model’s results. Additionally, the guide provides instructions for more advanced uses, which include updating the model’s data on an annual basis and changing model settings to reflect more fundamental changes in model assumptions. This User Guide was updated in January 2013 to include enhancements and adjustments made to improve the DOMICE Simulation Model.  

17. Key Words  
   Icebreaking, U.S. Coast Guard, modeling, simulation, service life extension program, WLB, WLM, WTGB, WYTL, WLBB, DOMICE  

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